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FOR: DATA TELEGRAM FOR TRANSMITTING DATA FORMATTED
IN ACCORDANCE WITH AN EXTRANEIOUS STANDARD (As
Amended; formerly "METHOD AND A DATA TELEGRAM FOR
THE TRANSMISSION OF DATA")

FIRST PRELIMINARY AMENDMENT

Entry of this preliminary amendment is respectfully requested to eliminate multiple dependent claims, and to amend the specification.

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Preliminary to calculation of the filing fee, please amend the above-identified application as follows:

I hereby certify that this Preliminary Amendment (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231, Attn: Application Division.

Amy M. Flick
Amy M. Flick

9-25-2001
Date

Marked-up copy of the specification

**DATA TELEGRAM FOR TRANSMITTING DATA FORMATTED
IN ACCORDANCE WITH AN EXTRANEIOUS STANDARD**

Description

A Method and a Data Telegram for the Transmission of Data

BACKGROUND OF THE INVENTION

The present invention relates generally to networks and, more particularly, to the use of data telegrams to transmit a method for the transmission of data in a network by means of data telegrams as well as to a data telegram for transmitting data in a network.

In networks which link data sources, data sinks, and transceivers, data are transmitted by means of data telegrams which that are formatted in accordance with standards or protocols, for example, e.g., in frames and blocks of various lengths. However, data which do not correspond to the standard of a network cannot be transmitted in this that network by means of the implemented data telegrams. For example, the MOST (Media Oriented Systems Transport or Media Oriented Synchronous Transfer) standard defines the format for data telegrams by means of which data are transmitted in a multimedia system designed in accordance with the MOST standard. MOST multimedia systems have been developed are commonly used, for example, use in motor vehicles. The abbreviation MOST stands for Media Oriented Systems Transport or Media Oriented Synchronous Transfer. One conventional approach to a local network in a vehicle is disclosed in German Patent Specification DE 195 03 213 C1. Such motor vehicles can include, for example, passenger cars, trucks, buses and other types of vehicles.

Unfortunately, due Due to the different standards and protocols for data telegrams implemented in networks such as the vehicle-hosted MOST multimedia system, e.g., in an MOST multimedia system of a motor vehicle, data cannot be transmitted-transmitted by means of data telegrams which are formatted according to the transmission control protocol (-

abbreviated-TCP)--or according to the Internet protocol (IP),--abbreviated IP--which are prescribed for the Internet.

~~Therefore, there is a need for an apparatus and method of It is therefore the object of the invention to design a method transmitting for transmitting data in a network by data telegrams and to design a data telegram for transmitting data in a network, in such a way that data can be transmitted in this network by means of data telegrams which that are not compliant with do not correspond to the standard of this the network.~~

SUMMARY OF THE INVENTION

Briefly, according to an aspect of the invention, a data telegram for transmitting data in a network via a first data transmission protocol, includes a data section containing data formatted in accordance with an extraneous standard, and a header section having a predetermined region that contains information specifying that the data section is formatted according to the extraneous standard. The information can be contained in a place in the header section that is otherwise unoccupied or that is not relevant to the host network standard. In one embodiment, the data telegram is divided into frames, the frames into blocks, and the blocks into bytes.

According to another aspect of the invention, a data telegram for transmitting data in accordance with a MOST protocol in a MOST network is disclosed. The data telegram includes a data section containing data formatted in accordance with a prescribable extraneous standard, and a header section that includes a plurality of bytes (e.g., five bytes) which contains information specifying that the data section is formatted according to the extraneous standard.

In yet another aspect of the invention, a MOST multimedia system is disclosed. The

system includes a plurality of multimedia devices communicably coupled through a communication path. The multimedia devices transmit and receive data telegrams formatted in accordance with a MOST standard. The data telegram includes a data section containing data formatted in accordance with an extraneous standard, and a header section that includes five bytes and includes a predetermined region that specifies that the data section is formatted according to the extraneous standard. The extraneous standard may include the Transmission Control Protocol standard, the Internet Protocol standard, or the Internet Packet Exchange Protocol standard.

These and other objects, features and advantages of the present invention will become more apparent in light of the following detailed description of preferred embodiments thereof, as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic diagram illustrating the format of a MOST telegram;

FIG. 2 is a schematic diagram of one embodiment of an inventive data telegram;

FIG. 3 is a schematic diagram of another embodiment of an inventive data telegram;

FIG. 4 is a schematic diagram of a further embodiment of an inventive data telegram;

and

FIG. 5 is a schematic diagram of a still further embodiment of an inventive data telegram.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is directed to transmitting data in a network using data telegrams.

In terms of method, this object is achieved by the characteristics of Claim 1, in that a defined place in the header section of a data telegram contains standard information which specifies that the remaining section of the data telegram is formatted according to a prescribable standard, and also specifies this standard, and that the prescribable standard is defined in the network.

A data telegram achieves this object with the characteristics specified in Claim 2, in that a defined place (4) in the header section (A) of the data telegram contains standard information which specifies that the remaining section (B, C) of the data telegram is formatted according to a prescribable standard, and also specifies this standard.

Typically, a data telegram includes a header section containing control and identification information, and a data section containing data. The data telegram is formatted in accordance with the standard implemented in the network, referred to herein as the host network standard. According to an aspect of the present invention, a defined place in the header section of the data telegram contains standard information which specifies that the remaining part of the data telegram, that is, the data section, is formatted in accordance with a prescribable standard, and which specifies this standard other than the host network standard, referred to herein as an extraneous standard. - Oftentimes, a portion of the header section contains standard information that describes the data section of the data telegram (e.g., the number of bytes contained in the data section, etc.). Preferably, this standard portion of the header section is used to identify the extraneous standard. From this standard information, the devices linked in the network such as - e.g. - data sources, data sinks; and transceivers, - will therefore be able to receive the data telegram because it is formatted in accordance with the host network standard, and will be able to recognize the extraneous standard according to which the data content of the received data telegram is formatted. Thus, the present invention enables network devices to, and will therefore be able to receive, transmit, and analyze data

telegrams with a prescribed standard extraneous to this the network of which they are a part.

Importantly, The the header section of the data telegram of the present invention can be formatted according to the host network standard of the network with the associated data section containing data formatted in accordance with the host network standard, or the header section may be formatted in accordance with the present invention with the associated data section including data formatted in accordance with the extraneous or according to another standard. As a result, the present invention ~~The inventive method and the inventive data telegram thus make~~ makes it possible, for example, in an MOST multimedia system installed in a motor vehicle, to use not only MOST telegrams but also data telegrams formatted in accordance with a different an extraneous standard; such as, for example, —e.g.—the Internet protocols TCP and IP. Advantageously, this enables the devices of a MOST ~~The invention thus makes it possible for an~~ MOST-network to communicate with the Internet without this-requiring great technical complexity. An MOST multimedia system in which the inventive method is implemented and in which data can be transmitted in accordance with the inventive data telegram consequently is not limited to the use of MOST telegrams for data transmission, but is compatible with other data telegrams.

The invention will now be described and elucidated in terms of the figures with references to a MOST network. FIGs. 1-5 are schematic diagrams of a data telegram, each providing an identification of the header and data sections thereof. Within each section, the relevant bytes are identified by byte number, representative name and range of values.

Figure 1 shows a first embodiment;

Figure 2 shows a second embodiment;

Figure 3 shows a third embodiment;

Figure 4 shows a fourth embodiment of an inventive data telegram; and

Figure 5 shows an MOST-telegram:

FIG. figure 15 is a schematic diagram illustrating shows the format of an conventional MOST telegram. Most data telegram 100 has a The-header section A-102 of the-MOST telegram-which is composed of five bytes 0, 1, 2, 3, and 4. The-first-bByte 0 specifies the function block identification, the-second-byte 1 specifies the state identification, the-third-and fourth-bytes 2 and 3 specify the function identification, and the-fifth-byte 4 specifies the telegram identification and the telegram length. The transmitted data 104 follow, beginning with the fifth-byte 4 byte 5. Byte 4 includes a telegram identifier with a range of values from 0 to 9, and a telegram length.

FIG. figure 2+ is a schematic diagram of one shows a first-embodiment of an inventive data telegram. This is-a-data telegram 200 includes a -,whose-header section 202A that is 5 bytes in length. The first four bytes 0, 1, 2, and 3 are reserved for control signals. For example, in one embodiment, the first four bytes corresponds to the MOST protocol or standard illustrated in FIG. 1 and described above. The first four bytes-0, 1, 2, and 3 are reserved for control signals. The fifth-bByte 4 contains the-special standard information. In the first-embodiment illustrated in FIG. 2, this specifies that the remaining part of the data telegram 200 is formatted in accordance with the TCP/IP protocol. Specifically, a portion of byte 4 that was dedicated to specifying the telegram ID still does so, but has a value of 0xA indicating that the data telegram 200 is formatted in accordance with the TCP/IP protocol. Data section 204 of data telegram 200 The-remaining part following the-header-section-A is divided into two sections-regionsB-and-C. The first region includes any number of bytes required to store the header information for the extraneous standard specified in byte 4. In data telegram 200, byte 5 to byte N Section-B contains the data belonging to the TCP/IP header. The second region of data section 204 includes byte N+1 to byte M-,while-section-C which

contains the transmitted data formatted in accordance with the extraneous standard, namely TCP/IP. Note that the value for the telegram ID in byte 4 is not included in the range of values prescribed by the MOST standard, as illustrated in FIG. 1. Also, since the network devices are processing the transmitted data in accordance with the extraneous TCP/IP standard, the telegram length portion of byte 4, which is used to process data formatted in accordance with the MOST standard, is not used and available.

FIG. figure 32 is a schematic diagram illustrating shows a second embodiment of an inventive a data telegram in accordance with the present invention. Data telegram 300 has a , whose header section A-302 formatted as in data telegram 200 described above. That is, header section 302 corresponds to the MOST protocol. As in the preceding embodiment, the fifth-byte 4 contains the standard information used in the present invention. In this embodiment, byte 4 includes a telegram identification value of 0xB indicating that data telegram 300 is formatted in accordance with the IPX protocol. Data section 304 includes a first region for Section B contains data belonging to an the IPX header followed by a second region that , the following section C contains the transmitted data in the IPX format.

FIG. figure 43 is a schematic diagram illustrating shows a third embodiment of an inventive a data telegram of the present invention. Data telegram 400 has a , whose header section 402A that likewise corresponds to the MOST protocol. Header section 402, however, has a first byte 0 that contains format information. The fifth-byte 4 contains the standard information and includes a telegram identification value as in data telegram 200 above to indicate that the data telegram 400 is formatted in accordance with the TCP/IP protocol. Data section 404 Section B again contains includes a first region that contains data of the TCP/IP header and a second region that . The following section C contains the transmitted data in TCP/IP format.

FIG. figure 54 is a schematic diagram illustrating shows a fourth embodiment of an inventive a data telegram of the present invention. Data telegram 500 has a ,whose header section 502A that likewise corresponds to the MOST protocol and includes the format data in byte 1 as noted above with reference to data telegram 400. The fifth bByte 4 contains the standard information and includes a telegram identification value as in data telegram 300 above to indicate that the data telegram 500 is formatted in accordance with the IPX protocol. Data section 504 Section B is reserved for data of the IPX header, while section C contains the and transmitted data as described above with reference to data telegram 300.

The difference between the first embodiment and the third embodiment as well as the second and the fourth embodiment is that a value is associated with byte 0 in the third and fourth embodiment.

However, (The inventive method and the inventive data telegram are not in no way limited to application in an MOST network, but can . They can be used universally in networks of arbitrary structure and arbitrary standards.

Although the present invention has been shown and described with respect to several preferred embodiments thereof, various changes, omissions and additions to the form and detail thereof, may be made therein, without departing from the spirit and scope of the invention.

What is claimed is:

List of Reference Symbols

A — Header section

B — Section

C — Section

0 — First byte

1 — Second byte

2 — Third byte

3 — Fourth byte

4 — Fifth byte

ABSTRACT OF THE DISCLOSURE

A data telegram for transmitting data in a network that includes a header section containing control and identification information, and a data section containing data. The data telegram is formatted in accordance with the standard implemented in the network. A defined place in the header section contains information that specifies that the remaining part of the data telegram, that is, the data section, is formatted in accordance with a prescribable standard other than the host network standard, referred to as an extraneous standard. The devices linked in the network such as data sources, data sinks and transceivers, will be able to receive the data telegram because it is formatted in accordance with the host network standard, and will be able to recognize the extraneous standard according to which the data content of the received data telegram is formatted. Thus, the network devices can receive, transmit and analyze data telegrams with a prescribed standard extraneous to the network of which they are a part. Thus, in a MOST multimedia system installed in a motor vehicle, either MOST telegrams or data telegrams formatted in accordance with an extraneous standard, such as, for example, the Internet protocols TCP and IP, can be used. To design a network, e.g. an MOST network, so that it can also process data telegrams of other standards, the header section (A) of the data telegram, formatted in accordance with the standard of the network or in accordance with another standard, contains standard information, which specifies that the remaining section (B; C) of the data telegram is formatted in accordance with a second standard (TCP/IP), and also specifies this standard.

Figure 1

*Clean Copy of the Specification
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**DATA TELEGRAM FOR TRANSMITTING DATA FORMATTED
IN ACCORDANCE WITH AN EXTRANEOUS STANDARD**

5 BACKGROUND OF THE INVENTION

The present invention relates generally to networks and, more particularly, to the use of data telegrams to transmit data in a network.

In networks which link data sources, data sinks, and transceivers, data are transmitted by data telegrams that are formatted in accordance with standards or protocols, for example, in
10 frames and blocks of various lengths. However, data which do not correspond to the standard of a network cannot be transmitted in that network by the implemented data telegrams. For example, the MOST (Media Oriented Systems Transport or Media Oriented Synchronous Transfer) standard defines the format for data telegrams by which data are transmitted in a multimedia system designed in accordance with the MOST standard. MOST multimedia
15 systems are commonly used, for example, in motor vehicles. One conventional approach to a local network in a vehicle is disclosed in German Patent Specification DE 195 03 213 C1. Such motor vehicles can include, for example, passenger cars, trucks, buses and other types of vehicles.

Unfortunately, due to the different standards and protocols for data telegrams
20 implemented in networks such as the vehicle-hosted MOST multimedia system, data cannot be transmitted by means of data telegrams which are formatted according to the transmission control protocol (TCP) or according to the Internet protocol (IP), which are prescribed for the Internet.

Therefore, there is a need for an apparatus and method of transmitting data in a network
25 by data telegrams that are not compliant with the standard of the network.

SUMMARY OF THE INVENTION

Briefly, according to an aspect of the invention, a data telegram for transmitting data in a network via a first data transmission protocol, includes a data section containing data formatted in accordance with an extraneous standard, and a header section having a predetermined region that contains information specifying that the data section is formatted according to the extraneous standard. The information can be contained in a place in the header section that is otherwise unoccupied or that is not relevant to the host network standard.

In one embodiment, the data telegram is divided into frames, the frames into blocks, and the blocks into bytes.

According to another aspect of the invention, a data telegram for transmitting data in accordance with a MOST protocol in a MOST network is disclosed. The data telegram includes a data section containing data formatted in accordance with a prescribable extraneous standard, and a header section that includes a plurality of bytes (e.g., five bytes) which contains information specifying that the data section is formatted according to the extraneous standard.

In yet another aspect of the invention, a MOST multimedia system is disclosed. The system includes a plurality of multimedia devices communicably coupled through a communication path. The multimedia devices transmit and receive data telegrams formatted in accordance with a MOST standard. The data telegram includes a data section containing data formatted in accordance with an extraneous standard, and a header section that includes five bytes and includes a predetermined region that specifies that the data section is formatted according to the extraneous standard. The extraneous standard may include the Transmission Control Protocol standard, the Internet Protocol standard, or the Internet Packet Exchange

Protocol standard.

These and other objects, features and advantages of the present invention will become more apparent in light of the following detailed description of preferred embodiments thereof, as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic diagram illustrating the format of a MOST telegram;

FIG. 2 is a schematic diagram of one embodiment of an inventive data telegram;

FIG. 3 is a schematic diagram of another embodiment of an inventive data telegram;

FIG. 4 is a schematic diagram of a further embodiment of an inventive data telegram;

and

FIG. 5 is a schematic diagram of a still further embodiment of an inventive data telegram.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is directed to transmitting data in a network using data telegrams.

Typically, a data telegram includes a header section containing control and identification information, and a data section containing data. The data telegram is formatted in accordance with the standard implemented in the network, referred to herein as the host network standard.

According to an aspect of the present invention, a defined place in the header section of the data telegram contains information that specifies that the remaining part of the data telegram, that is, the data section, is formatted in accordance with a prescribable standard other than the host network standard, referred to herein as an extraneous standard. Oftentimes, a portion of the header section contains standard information that describes the data section of the data

telegram (e.g., the number of bytes contained in the data section, etc.). Preferably, this standard portion of the header section is used to identify the extraneous standard. From this standard information, the devices linked in the network such as data sources, data sinks and transceivers, will be able to receive the data telegram because it is formatted in accordance with the host network standard, and will be able to recognize the extraneous standard according to which the data content of the received data telegram is formatted. Thus, the present invention enables network devices to receive, transmit and analyze data telegrams with a prescribed standard extraneous to the network of which they are a part.

Importantly, the header section of the data telegram of the present invention can be formatted according to the host network standard with the associated data section containing data formatted in accordance with the host network standard, or the header section may be formatted in accordance with the present invention with the associated data section including data formatted in accordance with the extraneous standard. As a result, the present invention makes it possible, for example, in a MOST multimedia system installed in a motor vehicle, to use not only MOST telegrams but also data telegrams formatted in accordance with an extraneous standard such as, for example, the Internet protocols TCP and IP. Advantageously, this enables the devices of a MOST network to communicate with the Internet without requiring great technical complexity. A MOST multimedia system in which the inventive method is implemented and in which data can be transmitted in accordance with the inventive data telegram consequently is not limited to the use of MOST telegrams for data transmission, but is compatible with other data telegrams.

The invention will now be described with references to a MOST network. FIGS. 1-5 are schematic diagrams of a data telegram, each providing an identification of the header and data sections thereof. Within each section, the relevant bytes are identified by byte number, representative name and range of values.

FIG. 1 is a schematic diagram illustrating the format of a conventional MOST telegram.

Most data telegram 100 has a header section 102 which is composed of five bytes 0, 1, 2, 3, and 4. Byte 0 specifies the function block identification, byte 1 specifies the state identification, bytes 2 and 3 specify the function identification, and byte 4 specifies the telegram identification and the telegram length. The transmitted data 104 follow, beginning with the byte 5. Byte 4 includes a telegram identifier with a range of values from 0 to 9, and a telegram length.

FIG. 2 is a schematic diagram of one embodiment of an inventive data telegram. This data telegram 200 includes a header section 202 that is 5 bytes in length. The first four bytes 0, 1, 2, and 3 are reserved for control signals. For example, in one embodiment, the first four bytes correspond to the MOST protocol or standard illustrated in FIG. 1 and described above. Byte 4 contains special standard information. In the embodiment illustrated in FIG. 2, this specifies that the remaining part of the data telegram 200 is formatted in accordance with the TCP/IP protocol. Specifically, a portion of byte 4 that was dedicated to specifying the telegram ID still does so, but has a value of 0xA indicating that the data telegram 200 is formatted in accordance with the TCP/IP protocol. Data section 204 of data telegram 200 is divided into two regions. The first region includes any number of bytes required to store the header information for the extraneous standard specified in byte 4. In data telegram 200, byte 5 to byte N contain the data belonging to the TCP/IP header. The second region of data section 204 includes byte N+1 to byte M which contains the transmitted data formatted in accordance with the extraneous standard, namely TCP/IP. Note that the value for the telegram ID in byte 4 is not included in the range of values prescribed by the MOST standard, as illustrated in FIG. 1. Also, since the network devices are processing the transmitted data in accordance with the extraneous TCP/IP standard, the telegram length portion of byte 4, which

is used to process data formatted in accordance with the MOST standard, is not used and available.

FIG. 3 is a schematic diagram illustrating a second embodiment of a data telegram in accordance with the present invention. Data telegram 300 has a header section 302 formatted as in data telegram 200 described above. That is, header section 302 corresponds to the MOST protocol. As in the preceding embodiment, byte 4 contains the standard information used in the present invention. In this embodiment, byte 4 includes a telegram identification value of 0xB indicating that data telegram 300 is formatted in accordance with the IPX protocol. Data section 304 includes a first region for the IPX header followed by a second region that contains the transmitted data in the IPX format.

FIG. 4 is a schematic diagram illustrating a third embodiment of a data telegram of the present invention. Data telegram 400 has a header section 402 that corresponds to the MOST protocol. Header section 402, however, has a first byte 0 that contains format information. Byte 4 contains the standard information and includes a telegram identification value as in data telegram 200 above to indicate that the data telegram 400 is formatted in accordance with the TCP/IP protocol. Data section 404 again includes a first region that contains data of the TCP/IP header and a second region that contains the transmitted data in TCP/IP format.

FIG. 5 is a schematic diagram illustrating a fourth embodiment of a data telegram of the present invention. Data telegram 500 has a header section 502 that corresponds to the MOST protocol and includes the format data in byte 1 as noted above with reference to data telegram 400. Byte 4 contains the standard information and includes a telegram identification value as in data telegram 300 above to indicate that the data telegram 500 is formatted in accordance with the IPX protocol. Data section 504 is reserved for data of the IPX header and transmitted data as described above with reference to data telegram 300.

The inventive method and the inventive data telegram are not limited to application in a MOST network, but can be used universally in networks of arbitrary structure and arbitrary standards.

Although the present invention has been shown and described with respect to several
5 preferred embodiments thereof, various changes, omissions and additions to the form and detail thereof, may be made therein, without departing from the spirit and scope of the invention.

What is claimed is:

ABSTRACT OF THE DISCLOSURE

A data telegram for transmitting data in a network that includes a header section containing control and identification information, and a data section containing data. The data telegram is formatted in accordance with the standard implemented in the network. A defined place in the header section contains information that specifies that the remaining part of the data telegram; that is, the data section, is formatted in accordance with a prescribable standard extraneous to the host network standard an extraneous standard. The devices linked in the network such as data sources, data sinks and transceivers, will be able to receive the data telegram because it is formatted in accordance with the host network standard, and will be able to recognize the extraneous standard according to which the data content of the received data telegram is formatted. Thus, the network devices can receive, transmit and analyze data telegrams with a prescribed standard extraneous to the network of which they are a part. Thus, in a MOST multimedia system installed in a motor vehicle, either MOST telegrams or data telegrams formatted in accordance with an extraneous standard, such as, for example, the Internet protocols TCP and IP, can be used.

Clean Copy of the Claims

Following Entry of This Amendment

11. A data telegram for transmitting data in a network that specifies a first data transmission protocol, the data telegram comprising:

a data section containing data formatted in accordance with an extraneous standard; and
a header section having a predetermined region that contains information specifying that the data section is formatted according to the extraneous standard.

12. The data telegram of claim 11, wherein the information is contained in a place in the header section that is otherwise unoccupied.

13. The data telegram of claim 11, wherein the information is contained in a place in the header section that is reserved for information that is not relevant to the host network standard.

14. The data telegram of claim 12, wherein the data telegram is divided into frames, the frames into blocks, and the blocks into bytes.

15. The data telegram of claim 12, wherein the first data transmission protocol is MOST and the host network standard is the MOST standard, and wherein the header section comprises five bytes with the information contained in the last byte of the header section.

16. The data telegram of claim 11, wherein the network is an MOST network in which data are transmitted by means of MOST telegrams having a header section consisting of five bytes, wherein the information is contained in a telegram identification portion the last byte of the header section.

17. The data telegram of claim 16, wherein the extraneous standard corresponds to the Transmission Control Protocol (TCP) standard.

18. The data telegram of claim 17, wherein the extraneous standard corresponds to the Internet Protocol (IP) standard.

19. The data telegram of claim 18, wherein the extraneous standard corresponds to the Internet Packet Exchange protocol (IPX) standard.

20. The data telegram of claim 19, wherein the header section of the data telegram is formatted in accordance with the host network standard.

21. A data telegram for transmitting data in accordance with a MOST protocol in a MOST network, the data telegram comprising:

a data section containing data formatted in accordance with a prescribable extraneous standard; and

a header section consisting of five bytes a predetermined region of which contains information specifying that the data section is formatted according to the extraneous standard.

22. The data telegram of claim 21, wherein the predetermined region in the header section that is otherwise unoccupied in accordance with the MOST protocol.

23. The data telegram of claim 21, wherein the predetermined region in the header section is reserved for information that is not relevant to the MOST protocol.

24. The data telegram of claim 21, wherein, wherein the information is contained in the last byte of the header section.

25. The data telegram of claim 21, wherein the extraneous standard is a Transmission Control Protocol (TCP) standard.

26. The data telegram of claim 21, wherein the extraneous standard is a Internet Protocol (IP) standard.

27. The data telegram of claim 18, wherein the extraneous standard is a Internet Packet Exchange (IPX) Protocol standard.

28. A MOST multimedia system comprising:
a plurality of multimedia devices communicably coupled through a communication path and defining a MOST network, wherein the multimedia devices transmit and receive data telegrams formatted in accordance with a MOST standard,
wherein the data telegram comprises
a data section containing data formatted in accordance with an extraneous standard; and
a header section consisting of five bytes and including a predetermined region that specifies that the data section is formatted according to the extraneous standard.

29. The data telegram of claim 28, wherein, wherein the standard information is contained in the last byte of the header section.

30. The data telegram of claim 28, wherein the extraneous standard is a one of the group consisting of:

Transmission Control Protocol standard;

Internet Protocol standard; and

Internet Packet Exchange Protocol standard.

REMARKS

Claims 1-10 have been cancelled. Claims 11-30 have been added. Claims 11-30 remain. The specification has been amended to grammatical and typographical errors. No new matter has been added.

The specification has been amended following the translation of the application to English. Examination on the merits is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,



Patrick J. O'Shea
Registration No. 35,305
Samuels, Gauthier & Stevens LLP
225 Franklin Street, Suite 3300
Boston, Massachusetts 02110
Telephone: (617) 426-9180 x121

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Canceled) A method for transmitting data in a network by means of data telegrams, characterized in that a defined place (4) in the header section (A) of a data telegram contains standard information which specifies that the remaining section (B, C) of the data telegram is formatted according to a prescribable standard, and also specifies this standard, and that the prescribable standard is defined in the network.
2. (Canceled) A data telegram for transmitting data in a network, characterized in that a defined place (4) in the header section (A) of the data telegram contains standard information which specifies that the remaining section (B, C) of the data telegram is formatted according to a prescribable standard, and also specifies this standard.
3. (Canceled) The method and data telegram of Claim 2, characterized in that the standard information is contained in a place (4) in the header section (A), which is unoccupied or which is reserved for non-relevant information.
4. (Canceled) The method or data telegram of Claim 3, characterized in that the data telegram is divided into frames, the frames into blocks, and the blocks into bytes.
5. (Canceled) The data telegram of Claim 2,

characterized in that this data telegram is an MOST telegram, whose header section (A) consists of five bytes (0, 1, 2, 3, 4), and that the standard information is contained in the last byte (4) of the header section (A).

6. (Canceled) The method of Claim 1, characterized in that the network is an MOST network in which data are transmitted by means of MOST telegrams whose header section (A) consists of five bytes (0, 1, 2, 3, 4), and that the standard information is contained in the last byte (4) of the header section (A).
7. (Canceled) The method or data telegram of Claim 6, characterized in that the prescribable standard, according to which the data telegram is formatted, corresponds to the Transmission Control Protocol - abbreviated TCP.
8. (Canceled) The method or data telegram of Claim 7, characterized in that the prescribable standard, according to which the data telegram is formatted, corresponds to the Internet Protocol - abbreviated IP.
9. (Canceled) The method or data telegram of Claim 8, characterized in that the prescribable standard, according to which the data telegram is formatted, corresponds to the Internet Packet Exchange protocol - abbreviated IPX.
10. (Canceled) The method or data telegram of Claim 9, characterized in that the header section (A) of the data telegram is formatted in

accordance with the standard of the network.

--11. (New) A data telegram for transmitting data in a network that specifies a first data transmission protocol, the data telegram comprising:

a data section containing data formatted in accordance with an extraneous standard; and

a header section having a predetermined region that contains information specifying that the data section is formatted according to the extraneous standard.--

--12. (New) The data telegram of claim 11, wherein the information is contained in a place in the header section that is otherwise unoccupied.--

--13. (New) The data telegram of claim 11, wherein the information is contained in a place in the header section that is reserved for information that is not relevant to the host network standard.--

--14. (New) The data telegram of claim 12, wherein the data telegram is divided into frames, the frames into blocks, and the blocks into bytes.--

--15. (New) The data telegram of claim 12, wherein the first data transmission protocol is MOST and the host network standard is the MOST standard, and wherein the header section comprises five bytes with the information contained in the last byte of the header section.--

--16. (New) The data telegram of claim 11, wherein the network is an MOST network in which data are transmitted by means of MOST telegrams having a header section consisting of

five bytes, wherein the information is contained in a telegram identification portion the last byte of the header section.--

--17. (New) The data telegram of claim 16, wherein the extraneous standard corresponds to the Transmission Control Protocol (TCP) standard.--

--18. (New) The data telegram of claim 17, wherein the extraneous standard corresponds to the Internet Protocol (IP) standard.--

--19. (New) The data telegram of claim 18, wherein the extraneous standard corresponds to the Internet Packet Exchange protocol (IPX) standard.--

--20. (New) The data telegram of claim 19, wherein the header section of the data telegram is formatted in accordance with the host network standard.--

--21. (New) A data telegram for transmitting data in accordance with a MOST protocol in a MOST network, the data telegram comprising:

a data section containing data formatted in accordance with a prescribable extraneous standard; and

a header section consisting of five bytes a predetermined region of which contains information specifying that the data section is formatted according to the extraneous standard.--

--22. (New) The data telegram of claim 21, wherein the predetermined region in the header section that is otherwise unoccupied in accordance with the MOST protocol.--

--23. (New) The data telegram of claim 21, wherein the predetermined region in the header section is reserved for information that is not relevant to the MOST protocol.--

--24. (New) The data telegram of claim 21, wherein, wherein the information is contained in the last byte of the header section.--

--25. (New) The data telegram of claim 21, wherein the extraneous standard is a Transmission Control Protocol (TCP) standard.--

--26. (New) The data telegram of claim 21, wherein the extraneous standard is a Internet Protocol (IP) standard.--

--27. (New) The data telegram of claim 18, wherein the extraneous standard is a Internet Packet Exchange (IPX) Protocol standard.--

--28. (New) A MOST multimedia system comprising:

a plurality of multimedia devices communicably coupled through a communication path and defining a MOST network, wherein the multimedia devices transmit and receive data telegrams formatted in accordance with a MOST standard,

wherein the data telegram comprises

a data section containing data formatted in accordance with an extraneous standard; and

a header section consisting of five bytes and including a predetermined region that specifies that the data section is formatted according to the extraneous standard.--

--29. (New) The data telegram of claim 28, wherein, wherein the standard information is contained in the last byte of the header section.--

--30. (New) The data telegram of claim 28, wherein the extraneous standard is a one of the group consisting of:

Transmission Control Protocol standard;

Internet Protocol standard; and

Internet Packet Exchange Protocol standard.--



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APPLICANT: Bähren et al.

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FOR: DATA TELEGRAM FOR TRANSMITTING DATA FORMATTED
IN ACCORDANCE WITH AN EXTRANEIOUS STANDARD

PROPOSED DRAWING AMENDMENT

This proposed drawing amendment is respectfully requested to replace the German text in Figs. 1-5 with English language text. Redlined copies of the Figs. are enclosed herewith illustrating the proposed amendments.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,

Patrick O'Shea

Patrick J. O'Shea
Registration No. 35,305
Samuels, Gauthier & Stevens LLP
225 Franklin Street, Suite 3300
Boston, MA 02110
Telephone: (617) 426-9180
Extension 121

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Amy M. Flick
Amy M. Flick

9-25-2001
Date

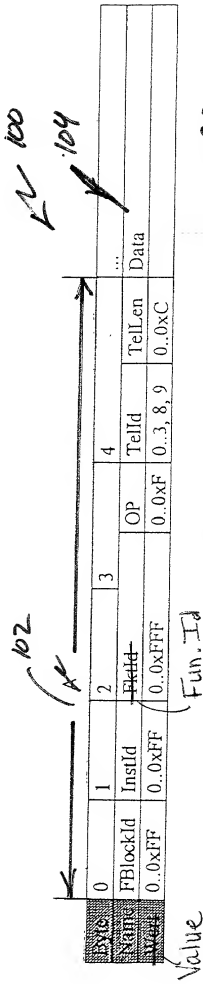


Fig. 81

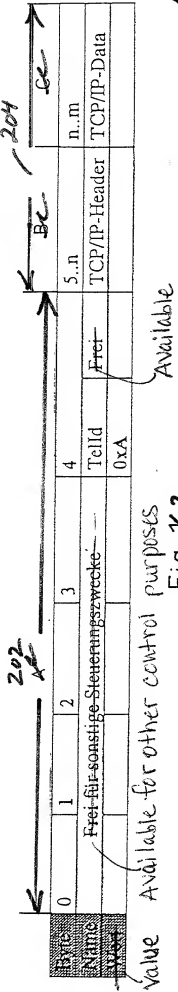


Fig. 72

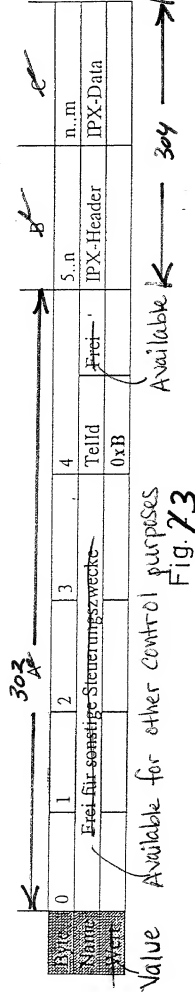
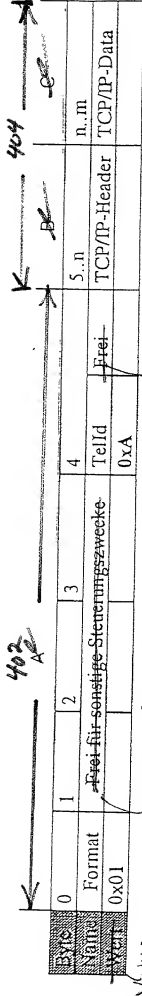


Fig. 73

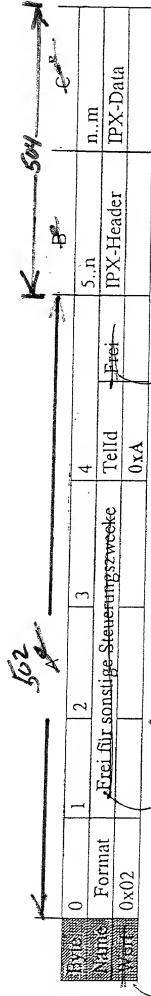
400



Available

Available for other control purposes
Fig. 34

500



Available

Available for other control purposes
Fig. 45